

PIPE BURNOUT OVEN WITH POLLUTION CONTROL CONTROL

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U.S. Patent Documents

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ABSTRACT

A batch type pipe burnout oven is provided with improved pollution control and heat recovery features. The oven is elongated with an end opening for introduction of a movable support or cart with pipe supported thereon. The oven is brought to burnout temperature faster than prior art ovens and an improved system is provided for pollution control by incineration of hydrocarbon fumes together with recovery of heat which results in superior fuel economy. The oven is provided with a pair of oppositely positioned plenums along the sides thereof which supply heated air in large volume and high velocity through a plurality of nozzle slots to the pipe-containing chamber and are themselves supplied from a recirculation burner chamber on the top of the oven. A relatively small volume of air, laden with volatile, combustible fumes, is withdrawn from the oven at a relatively low velocity by an exhaust fan. This fume-laden air is passed through a gas-fired incinerator in a combustion chamber where the fumes are completely burned and the combustion products raised to a temperature of about 1400.degree. F. These combustion products are passed through a heat exchanger in the burner chamber on top of the oven and then through another heat exchanger to preheat combustion air for the gas-fired burners prior to being exhausted to atmosphere.

14 Claims, 6 Drawing Figures

